An aerial photograph of a town, likely Montgomery, Alabama, with a large, dark, stormy cloud formation in the background. The town is visible in the foreground, with a large parking lot filled with cars. The text is overlaid on the image.

Tornado Outbreak April 27, 2011 “Dealing with the Aftermath”

**Nonpoint Source Conference
Montgomery, AL
January 24, 2012**

High Risk Outlook

- ▣ “High Risk” (HR) convective outlooks issued by the NOAA/NWS/Storm Prediction Center (SPC) are reserved for events that only occur a few days per year
- ▣ During the period 2003 to 2009, there were 100 HR outlooks issued on a total of 29 HR days.
- ▣ A median of 5 HR days per year

Source: A Detailed Analysis of SPC “High Risk” Outlooks, 2003-2009

Jason M. Davis – Valparaiso University, Valparaiso, IN

Andrew R. Dean – NOAA/NWS Storm Prediction Center, Norman, OK

Jared L. Guyer – NOAA/NWS Storm Prediction Center, Norman, OK



April 27, 2011 - Facts

- ▣ 202 tornadoes confirmed in 14 states causing 316 fatalities with majority in Alabama
- ▣ In Alabama, 62 tornadoes struck with two of them being EF5's
- ▣ **Source:** Kelly Kazek, The News Courier in Athens, Alabama, September 15, 2011



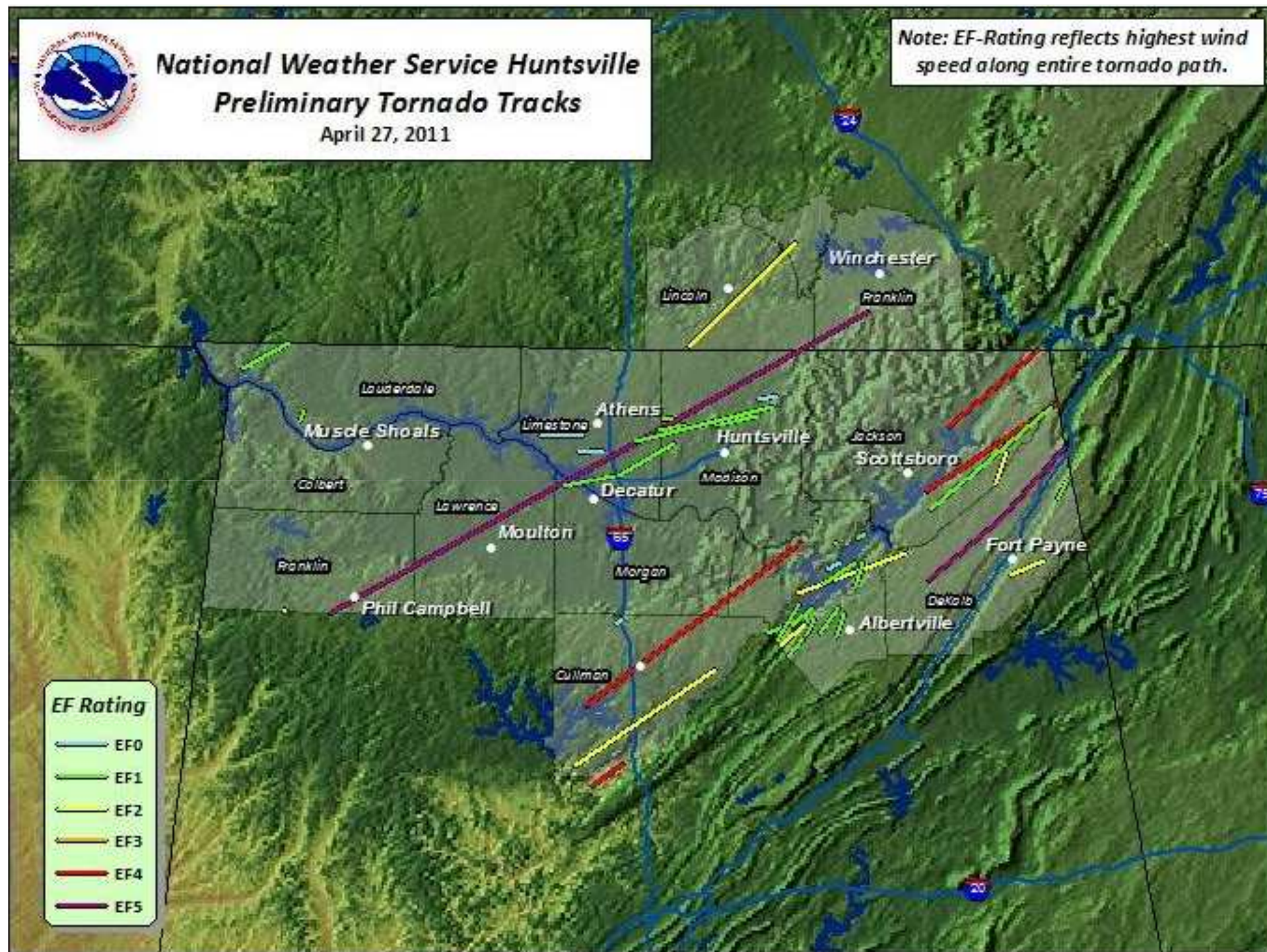
National Weather Service Huntsville Preliminary Tornado Tracks

April 27, 2011

Note: EF-Rating reflects highest wind speed along entire tornado path.

EF Rating

- EF0
- EF1
- EF2
- EF3
- EF4
- EF5



Dead Animal Disposal

- ▣ NRCS normally provides “Recovery” efforts related to natural disasters.
- ▣ However, in a “response” mode, NRCS worked closely with ADAI to locate proper burial sites for over 3 million poultry .



“Dealing with the Aftermath”



Debris in streams can cause imminent threat to life and property.

USDA – Emergency Watershed Protection (EWP) Program

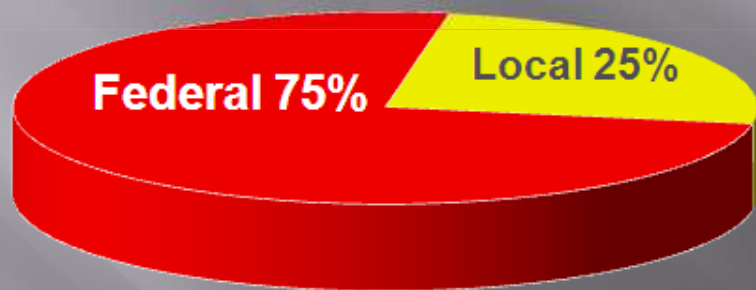
Helps local units of government recover from imminent hazards to life and property created by a natural disaster.

Eligibility Criteria

- ▣ Damage was a result of a **natural disaster**?
- ▣ Recovery measures would be for **runoff retardation** or **soil erosion prevention**?
- ▣ Threat to **life** and/or **property**?
- ▣ Event caused a **sudden impairment** in the watershed?
- ▣ **Imminent threat** was created by this event?
- ▣ Economically Defensible and Technically Sound

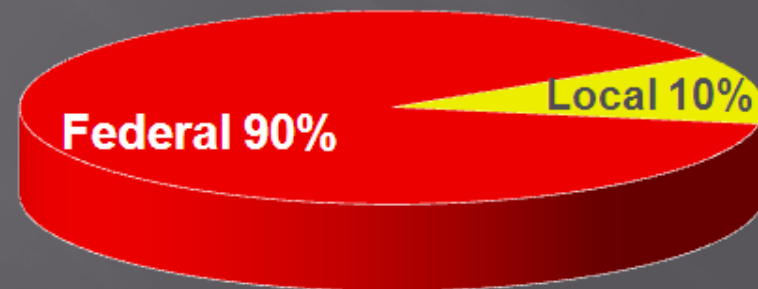
Emergency Watershed Protection

- Ability to provide local share of construction costs



Normal EWP

This Event



Network Express - Windows Internet Explorer

File Edit View Favorites Tools Help

http://vars.3-gis.com/alabamastormtracker/

Live Search

Favorites

Free Hotmail

Network Express


Page Safety Tools

Alabama Storm Tracker

Credits:
Flight:
The Atlantic Group

Thanks:
Franklin County
Lawrence County

Login



User Name

Password


Login

Language

English - US

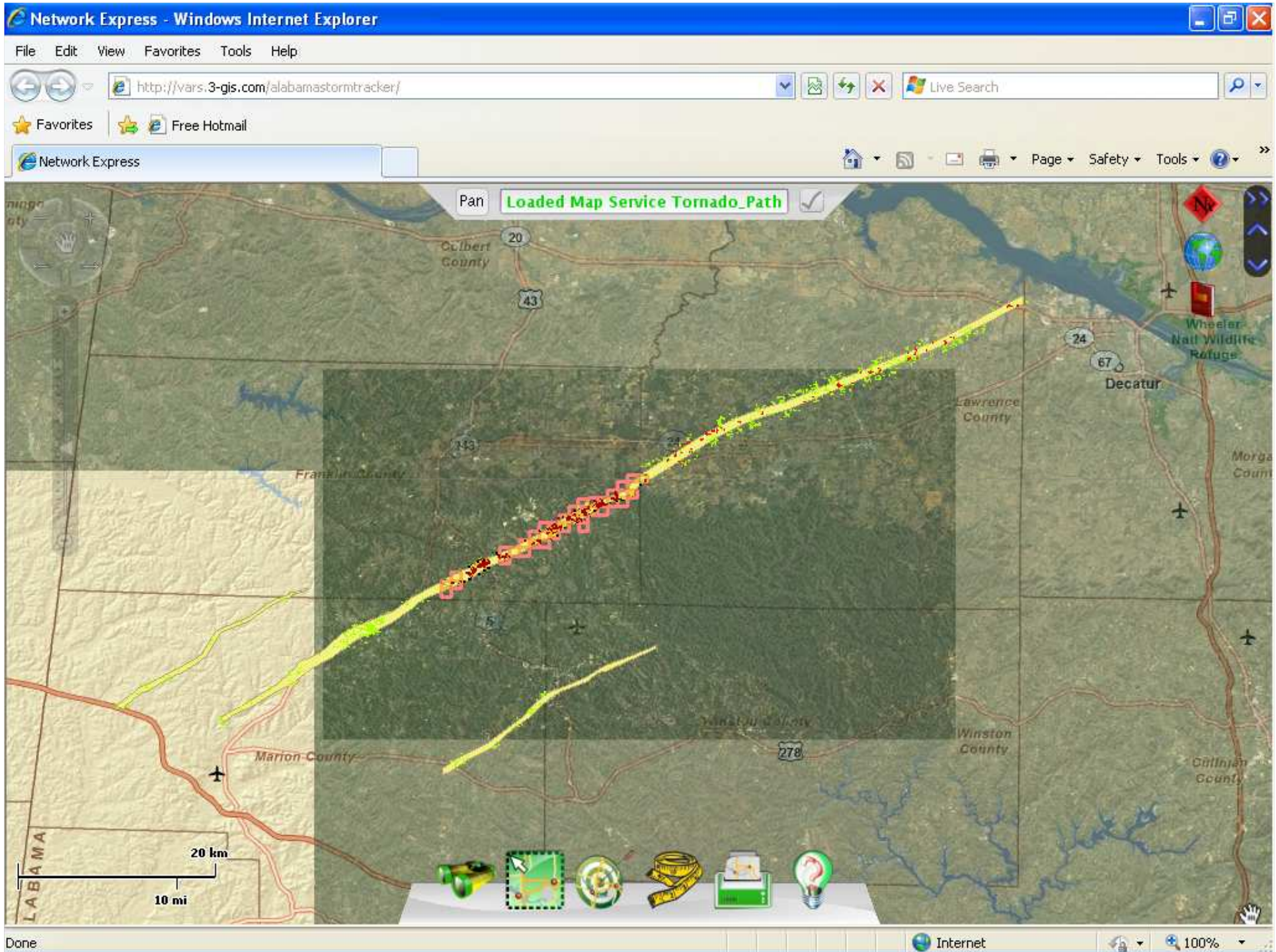
3-GIS

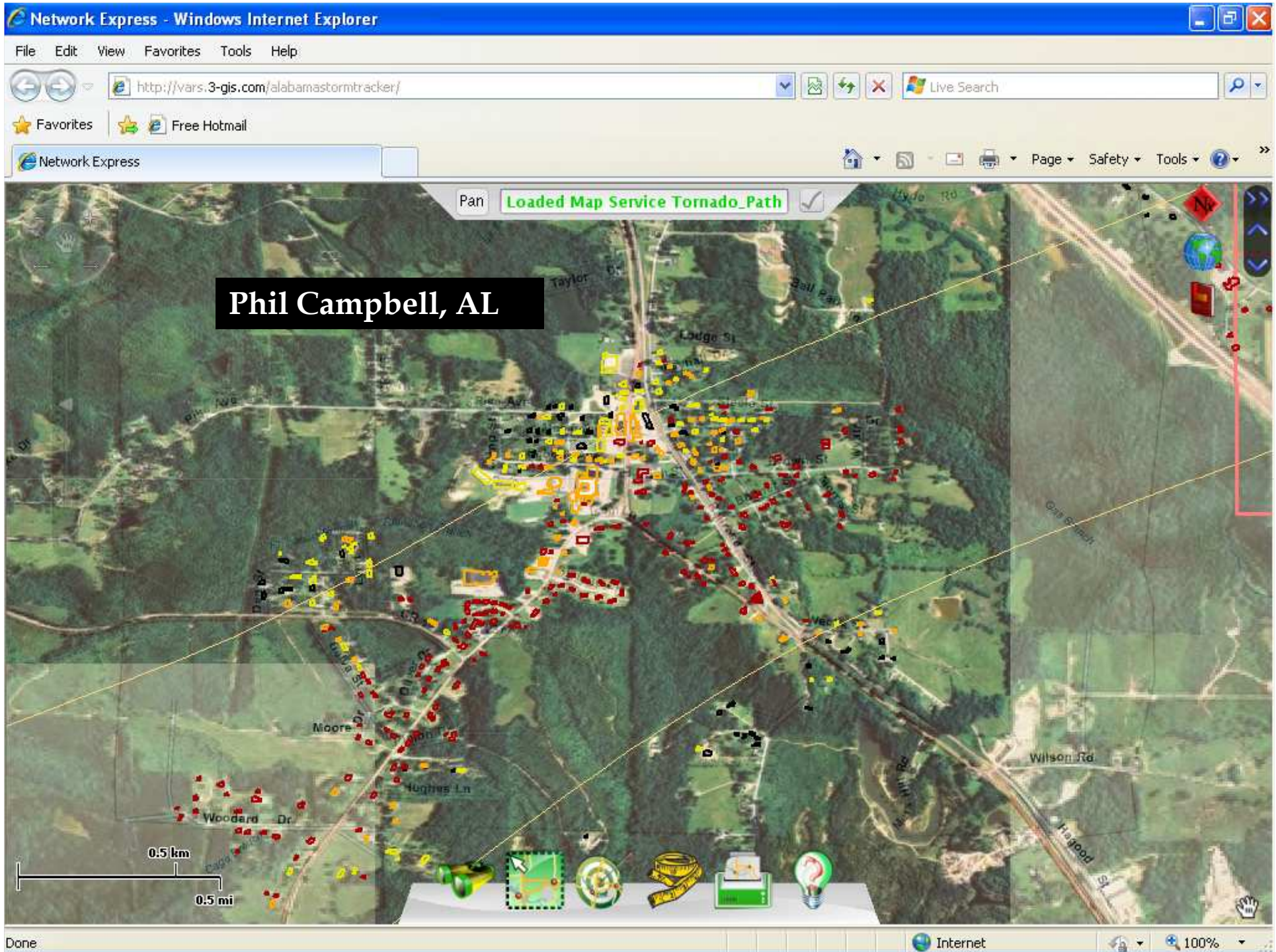
This program is protected by US and international copyright.



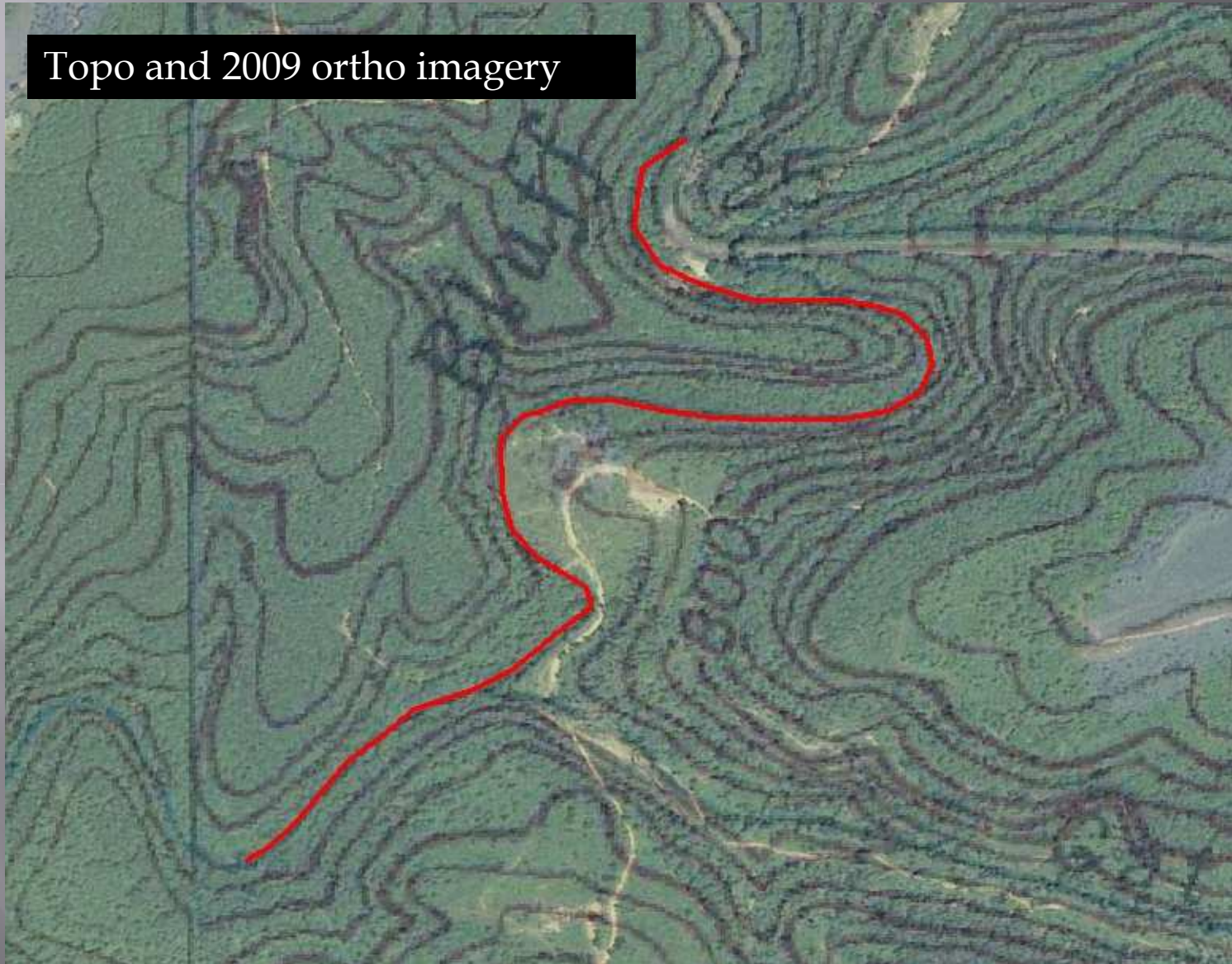
GIS Consortium

DoneInternet100%

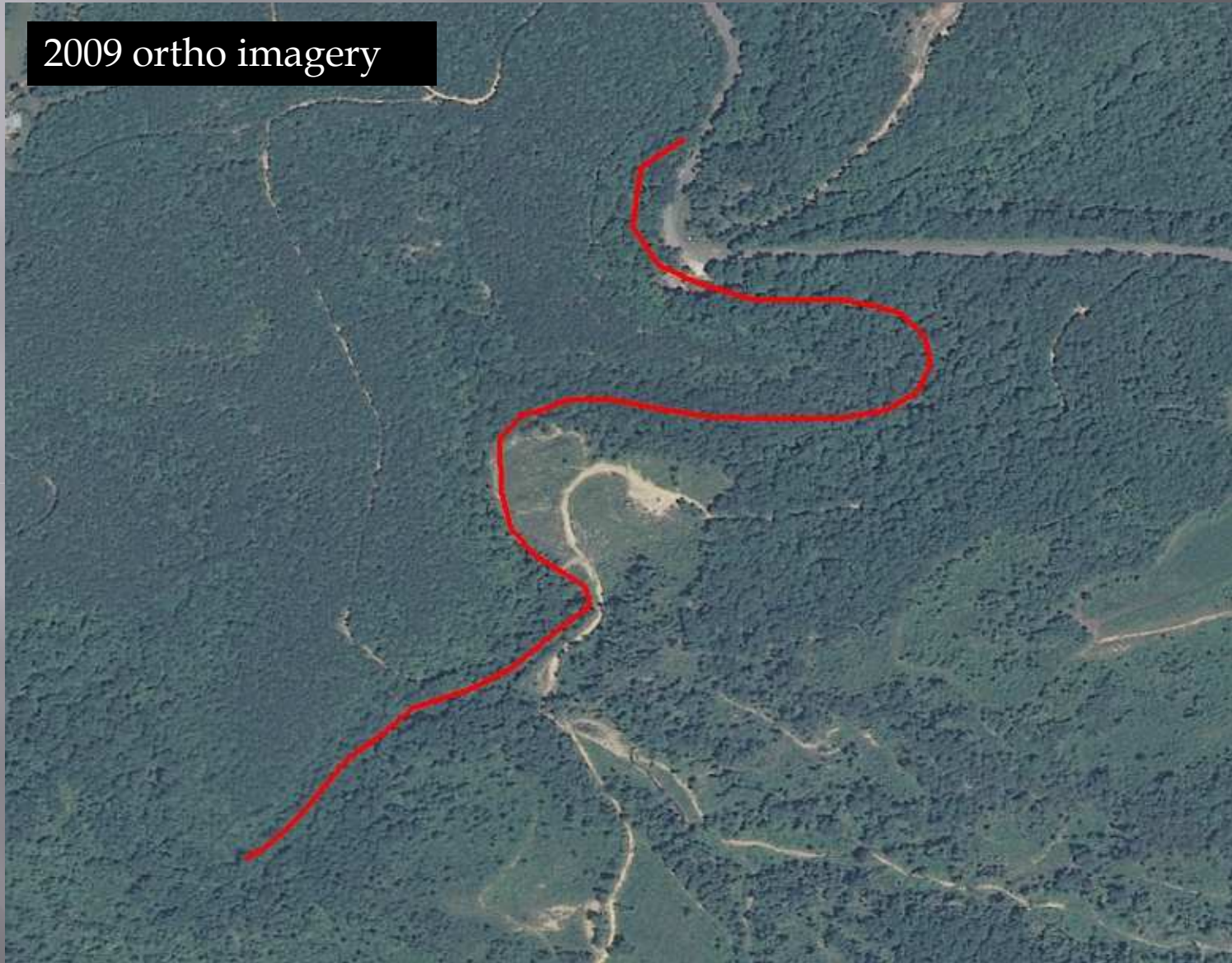




Topo and 2009 ortho imagery



2009 ortho imagery



2011 ortho imagery
after 4/27 event



2011 ortho imagery

Trees blown over by
4/27 event clogging
creek















EWP Sponsors

- ▣ 25 Sponsors (Cities and Counties).
- ▣ 126 DSR's approved.
- ▣ \$7,766,469 Estimated Construction Cost.
- ▣ Some projects to be completed with sponsor work force (Force Account).
- ▣ Most projects will be contracted out by the sponsor (Contracting Local Organization).
- ▣ 220 days to complete construction.

EWP Construction

- ▣ ONLY storm related debris that is blocking the stream and adjacent floodplain can be removed.
- ▣ Non-damaged and slightly damaged trees will remain.
- ▣ Stumps will be left whenever possible.
- ▣ Some woody debris left in the streams is OK.
- ▣ No equipment will be allowed to operate in the streams.
- ▣ Disposal will be by approved methods.
- ▣ Disturbed areas will be seeded and mulched.

Environmental Quality Incentives Program (EQIP)

- ▣ Used for clearing and snagging of new storm related debris from stream channels and banks
- ▣ Federal cost share 75% of the actual costs on the bills



CLEARING AND SNAGGING OF STORM DEBRIS FROM STREAMS

Alabama NRCS Job Sheet No. AL326



Definition

The work consists of clearing and snagging new storm related debris from stream channels and stream banks.

line, written permission must be obtained from the adjoining property owner prior to clearing and snagging operations.

Method of Operation

EQIP, 326 – Clearing and Snagging For April 2011 Tornado Debris

Criteria:

- Limited to work on dashed or blue line streams on a topographic map, except for the very low rate that can be applied to work in headwater draws that are either between crop or pasture fields
- Clearing and Snagging will be for storm related debris only
- Only the stream channel and the stream banks will be cleared of storm related debris.
- Equipment with excessive oils and fluid leaks will not be allowed to do Clearing and Snagging.
- No heavy equipment will be allowed to operate within the streambed or water.
- **Heavy equipment must operate from the stream bank only. If equipment is found (or there is evidence that it was) in the stream, the financial assistance for clearing and snagging will be FORFEITED. ONLY storm related debris will be removed.**
- Stumps still connected to the ground by roots (even on one side) should remain with the broken tree sawed and removed, then the stumps up righted.
- Debris removal will be one or combinations of the following:
 - Stacking on the farm and out of the 100 year floodplain.
 - Burning and leftover material buried at an approved location (not in a wetland).
 - Hauled from site to an approved location.
- All disturbed areas will be seeded and mulched using 342 – Critical Area Planting.

Clearing and Snagging Tornado Debris



- Chainsaw work is always needed.
- Only storm related debris removed.
- Some woody debris left in the stream is good.
- Trees standing should remain standing.
- Minimal disturbance to streambank.
- No equipment in the stream.

**Before photo of EQIP
clearing and snagging**



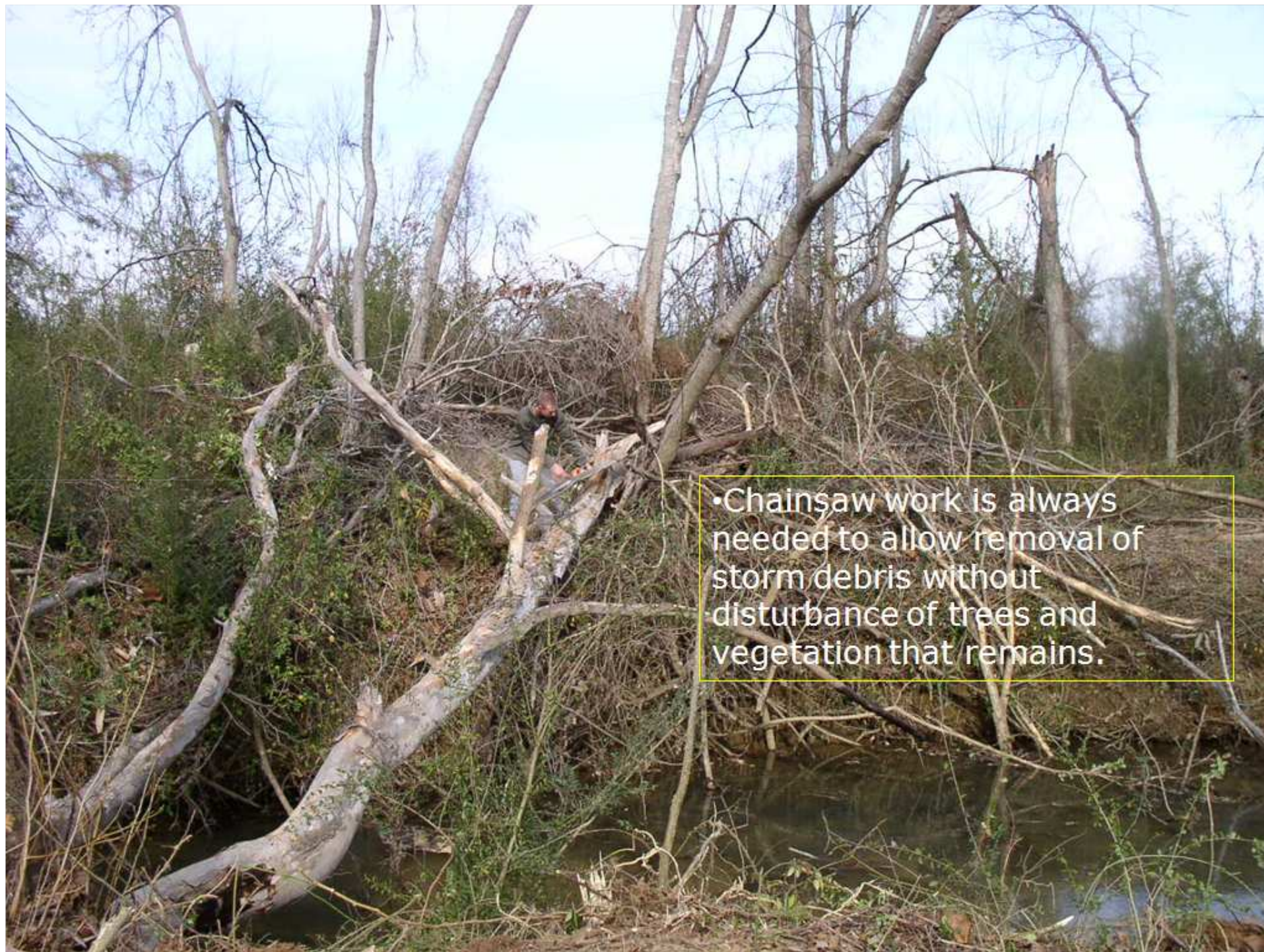


This is an EQIP completed clearing and snagging operation.

- A good job of only removing storm related debris.
- Disturbed areas need critical area treatment.

This is an EQIP clearing and snagging operation in progress.

- A good job of only removing storm related debris.
- Access from one side of stream only.
- Stumps left in place.
- Disturbed areas will need critical area treatment.
- Access road should have been a little farther from the top of the stream bank.

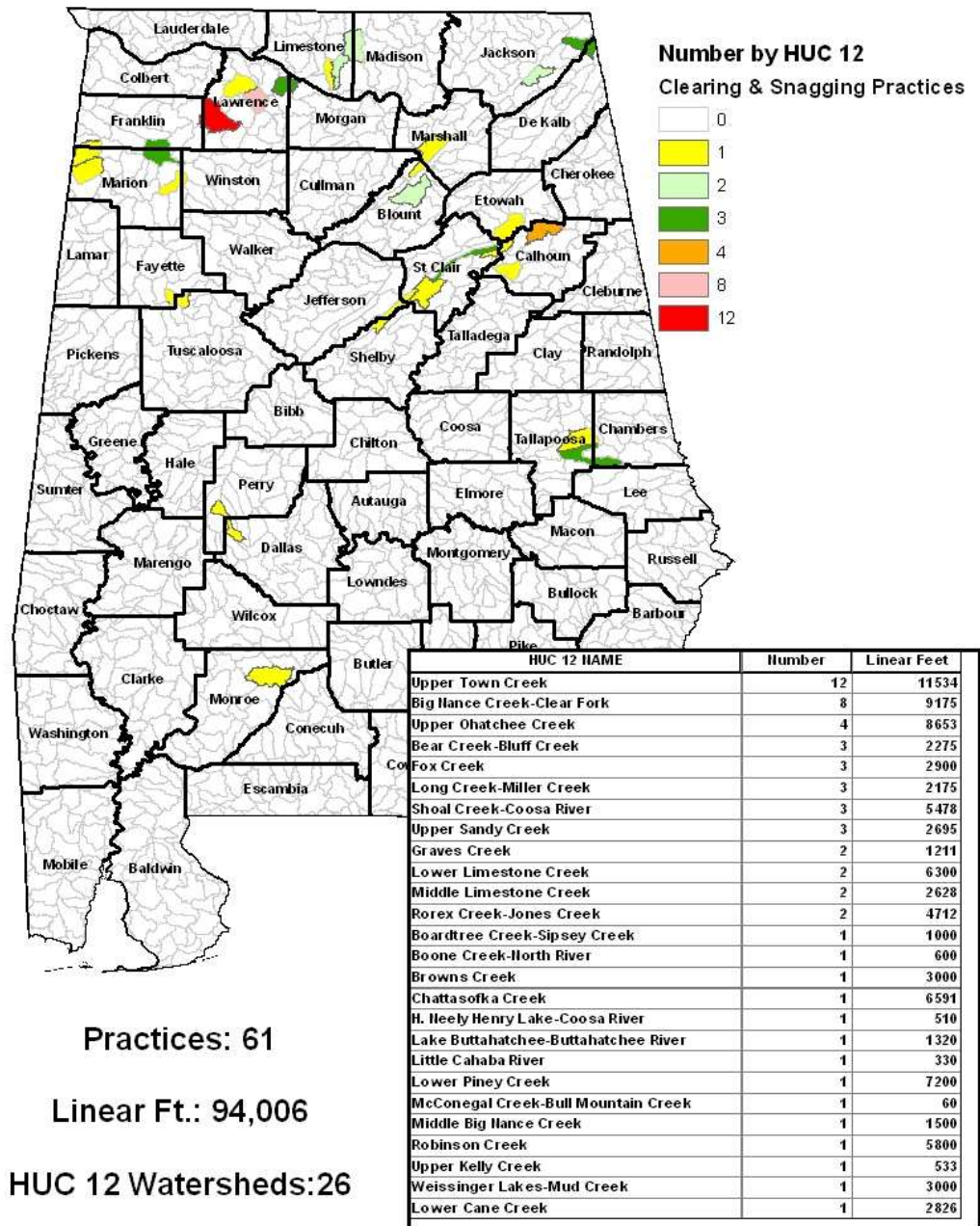


•Chainsaw work is always needed to allow removal of storm debris without disturbance of trees and vegetation that remains.



- Type of equipment needed to remove debris from stream.
- Standing trees should still be there after debris is removed.

EQIP 2011 Tornado Recovery



EQIP cost-share

- ▣ Waste Storage Facility - \$272,845 (obligated)
- ▣ Animal Mortality Facility - \$15,125 (obligated)
- ▣ Composting Facility - \$127,531 (obligated)
- ▣ Clearing & Snagging - \$1,827,401.73 (obligated)